

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for providing Internet Protocol mobility service for a mobile station in a packet radio network, the method comprising:
coupling the packet radio network to a data network implementing Internet Protocol;
installing into the packet radio network a foreign agent having an Internet Protocol address;
integrating the foreign agent into a ~~first support node~~ GGSN node or SGSN node included in the packet radio network;
the GGSN node or SGSN node receiving an access point name from the mobile station, the access point name indicating a request for a service from the foreign agent;
providing a care-of-address for the mobile station; ~~and by~~ using the Internet Protocol address of, ~~or provided by,~~ the foreign agent as the mobile station's care-of-address;
~~wherein, the packet radio network is coupled to a data network implementing Internet Protocol.~~
2. (Previously Presented) The method of claim 1, wherein the first support node is an access node.
3. (Previously Presented) The method of claim 1, wherein the first support node is a gateway node.
4. (Cancelled)
5. (Currently Amended) The method of claim 1, further comprising receiving ~~an~~ the access point name from the mobile station, in connection with an attach procedure, ~~the access point name indicating a network operator and a Mobile IP address.~~
6. (Previously Presented) The method of claim 5, wherein the access point name is received by an access node and the method further comprises sending the access point name received from the mobile station to a gateway node.
7. (Previously Presented) The method of claim 1, further comprising storing information concerning whether the mobile station in question is allowed to use the Internet Protocol mobility service in a register of the packet radio network.

8. (Currently Amended) The method of claim 1, further comprising receiving information from the mobile station indicating whether the mobile station requests use of the Internet Protocol-type mobility service.

9. (Currently Amended) An arrangement for providing Internet Protocol mobility service for a mobile station, the arrangement comprising:

at least two support nodes, wherein at least one support node is an ~~access~~-SGSN node, and at least one support node is a gateway-GGSN node; and

a foreign agent having an Internet Protocol address being integrated into at least one of the support-SGSN and GGSN nodes;

wherein, the Internet Protocol address of, ~~or provided by~~, the foreign agent is also the mobile station's care-of-address;

wherein the support node comprising means for receiving an access point name from the mobile station, the access point name indicating a request for a service from the foreign agent.

10. (Previously Presented) The arrangement of claim 9, wherein the foreign agent is integrated into the access node.

11. (Previously Presented) The arrangement of claim 9, wherein the foreign agent is integrated into the gateway node.

12. (Currently Amended) A support node for a packet radio network, arranged to provide mobility service for a mobile station, the support node comprising:

an integrated foreign agent having an Internet Protocol address,

wherein the support node supports at least an Internet Protocol and is adapted to use the Internet Protocol address of, or provided by, the foreign agent as the mobile station's care-of-address, and

wherein the support node is a GGSN node or SGSN node comprising means for receiving an access point name from the mobile station, the access point name indicating a request for a service from the foreign agent ~~and wherein, the packet radio network is coupled to a data network implementing Internet Protocol.~~

13. (Previously Presented) The method of claim 7, wherein the register of the packet radio network is a Home Location Register.

14. (Previously Presented) The method of claim 8, wherein the receiving information from the mobile station indicating whether the mobile station requests use of the Internet Protocol mobility service is performed in connection with mobile station registration.

15. (New) The method of claim 5, further comprising receiving the access point name from the mobile station, in connection with a packet data protocol context activation request.

16. (New) The support node of claim 12, arranged to receive the access point name from the mobile station, in connection with an attach procedure.

17. (New) The support node of claim 12, arranged to receive the access point name from the mobile station, in connection with a packet data protocol context activation procedure.